

System Architecture for Effective Financing of SMEs

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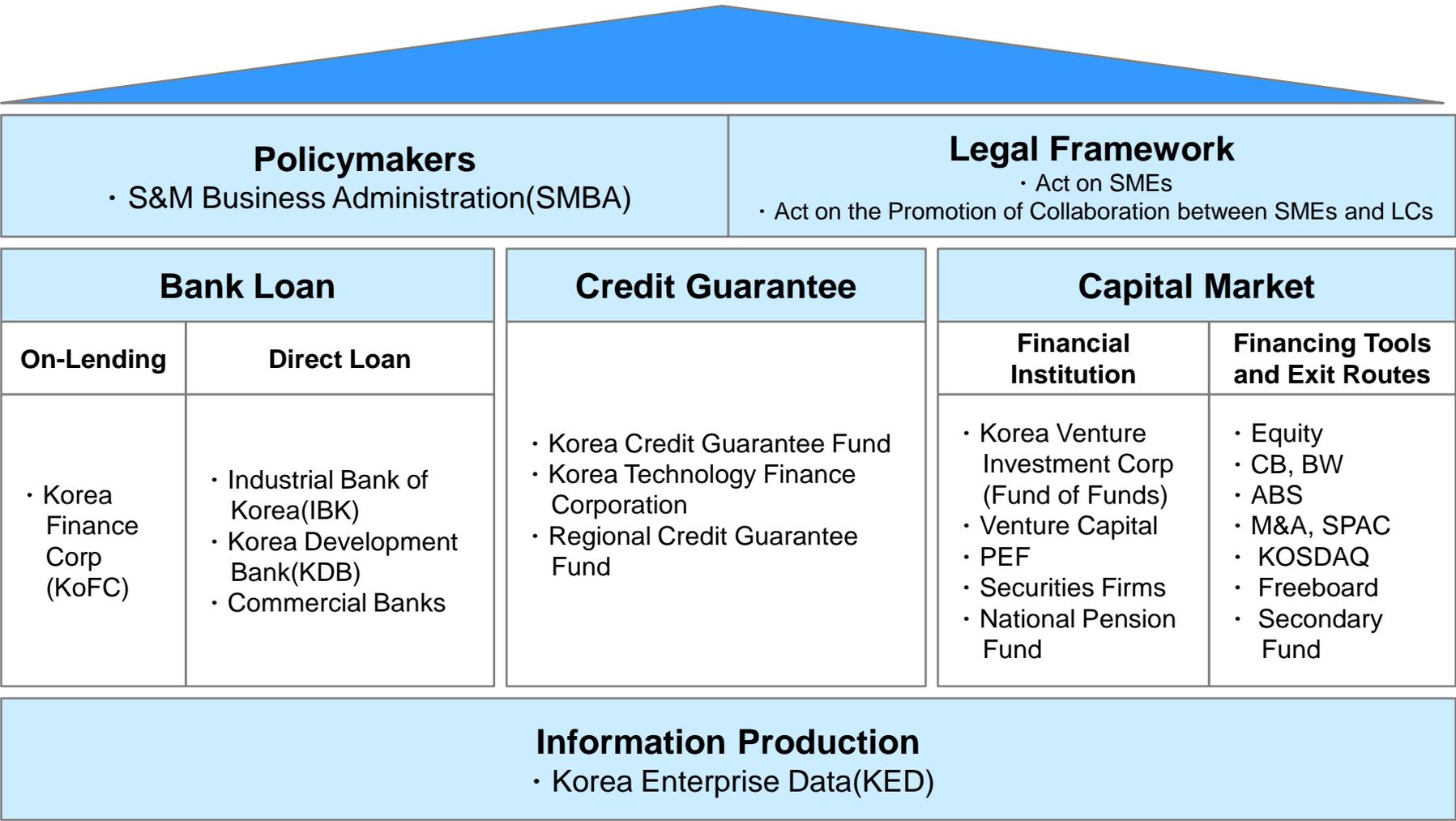
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I. Framework for SME Financing

Architecture for SME Financing: Framework



SME Financial Architecture as a Global Agenda

❖ G-20 Proposal

- Models should address one or more of these objectives:
 - Catalyzing debt finance for SMEs and mobilizing equity or quasi-equity investments in SMEs
 - Building the capacity of financial institutions and related financial infrastructure and develop regulatory and policy best practices that facilitate SME finance

❖ Basel Committee Concession

- Basel Committee appear to have responded to arguments that excessive tightening of the rules could constrain growth and lending particularly to SMEs
 - Rules on Liquidity Coverage Ratio and Net Stable Funding Ratio were watered down or delayed to free up SME lending

❖ Dodd-Frank Act

- Exemption is granted to venture capitals while other financial institutions are under strict regulations

❖ JOBS(Jumpstart Our Business Startups) Act

- Job creation through easy access to capital market
- Capital formation of emerging growth companies vs investor protection

New Capitalism and SMEs: Shared Growth for SMEs and Large Corporations

- ❖ **Act on the promotion of collaboration between SMEs and LCs**

- ❖ **Shared growth commission for SMEs and LCs**
 - SME appropriate businesses and products
 - Shared growth index
 - Benefit sharing system, profit sharing system

- ❖ **SME specialized exchange(KONEX)**

- ❖ **QIB(qualified institutional buyers) in bond markets**

II. SME Financing and Bank Loans

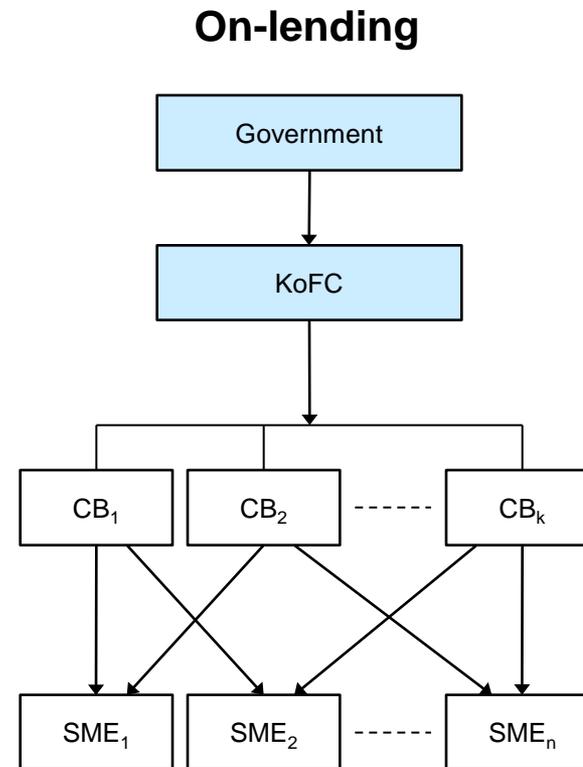
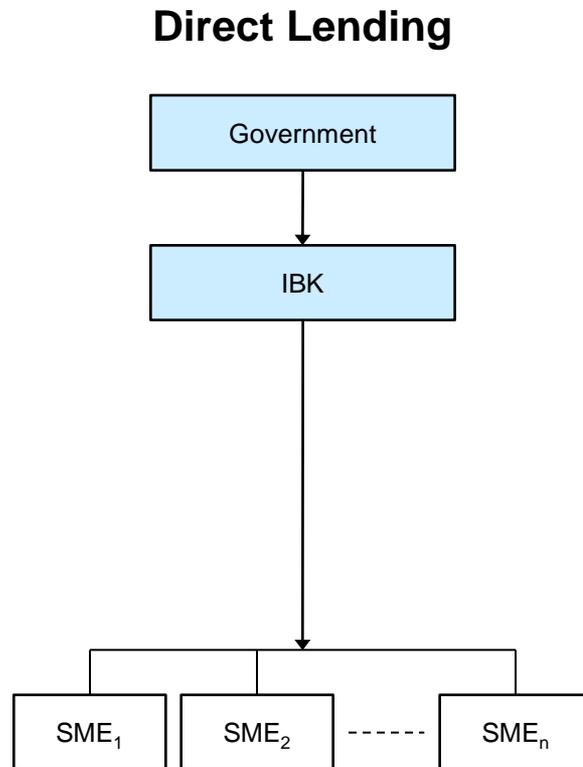
Comparison of On-lending and Direct Lending

❖ **On-lending is a policy lending scheme where government only allocates capital into commercial banks and commercial banks engage in screening, executing and monitoring loans to SMEs**

Comparison of On-lending and Direct Lending

	On-lending	Direct Lending
Upside and downside	Market friendly	Direct and prompt execution
Loan provider	Commercial banks	Government-sponsored financial institutions
When used	When CBs and market is working	When CBs and market is not working
Risk Taking	Commercial Banks	Government-sponsored financial institutions

Comparison of On-lending and Direct Lending : Korean Case



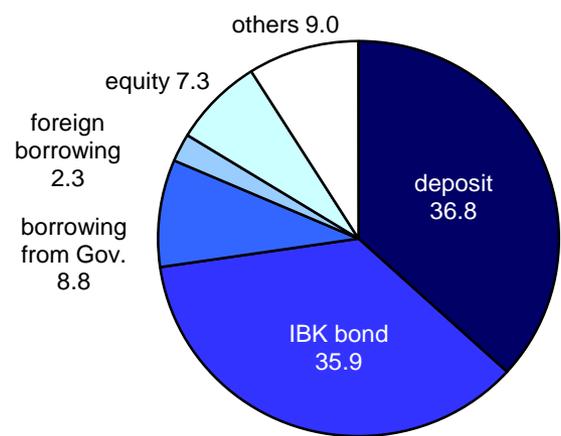
Direct Lending by Industrial Bank of Korea

- ❖ **The loan to SMEs still accounts for the largest proportion in the loan portfolio of IBK**
- ❖ **As commercial banks play significant role even in SMEs financing, IBK is responsible for less proportion of SME loans**
 - IBK is expected to be privatized
- ❖ **Unlike other countries' policy financial institutions, IBK finances capital not just by issuing bond but by receiving deposits.**

IBK's loan portfolio(composition,%)

	2004	2006	2008	2009	2011
SMEs	85	82	81	80	76
Large Corp	0	0	2	2	2
Consumer	15	18	17	18	22
Total	100.0	100.0	100.0	100.0	100.0

IBK's Funding Structure(2011,%)



On-lending by Korea Finance Corporation

❖ **Korea Finance Corporation (KoFC) is a on-lending provider in Korea**

- KoFC is a public corporation established by the Korean government on October 2009
- KoFC capitalizes on financial institutions' intermediary role to help finance SMEs, develop regional economies, build social infrastructure, and nurture new growth engine industries

❖ **Primary responsibilities**

- Supply and manage funds necessary to support SME growth
- Provide on-lending and the risk sharing system, where the KoFC shares some part of the risks that a financial intermediary bears when it provides on-lending to SMEs with a low credit rating
- An indirect investment scheme which supports SMEs with promising technologies, but without sufficient funds

❖ **Major investments**

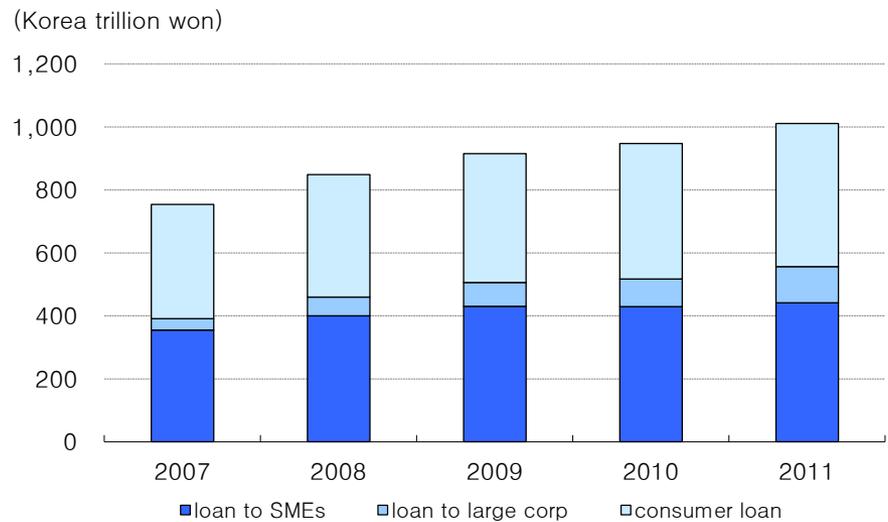
- On-lending balance: US\$1.3 billion, as of May 2010
- Investments in funds specialized for SMEs: US\$100 million

Loans to SMEs by Commercial Banks

❖ **Even after the crisis, while loans to large companies shrink, loans to SMEs consistently increase**

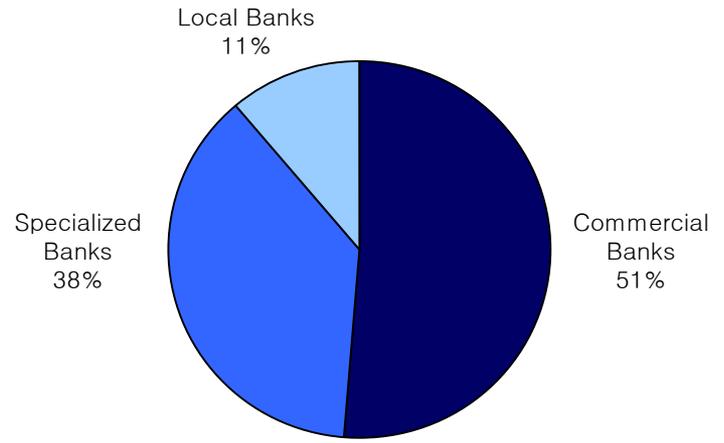
- In 2009, loans to SMEs outstanding is even larger than consumer credit
- Commercial banks and specialized banks account for 50%, 35% of total loans to SMEs respectively
 - IBK takes up almost 20% of total loans to SMEs

Loan Portfolio of Commercial Banks



Source: FSS, BOK

Loans to SMEs by Financial Institutions(2011)



Source: Financial Supervisory Service(FSS)

III. SME Financing and Credit Guarantees

Credit Guarantee Mechanisms

❖ Credit guarantee provision by public institutions

- Korea credit guarantee funds, Korea technology credit guarantee funds

❖ Credit guarantee provision by credit derivatives

- Credit default swap

❖ Credit guarantee provision by underwriting insurance

- Monoline insurance company

The Evolution of Guarantee Market in Korea

<p>Korea Credit Guarantee Fund (1976)</p>	<p>Korea Technology Finance Corporation (1989)</p>	<p>Regional Credit Guarantee Federation (2000)</p>	<p>Reformed the credit guarantee system (2005)</p>	<p>Adjust the size of guarantees according to financial situations (Feb. 2009 ~)</p>
<ul style="list-style-type: none"> Designed to invigorate financial support to SMEs, that suffer from information asymmetry and are marginalized from the mainstream financing A public guarantee provider which provide loan guarantees to SMEs 	<ul style="list-style-type: none"> Designed to revitalize investments in high-tech businesses Provide guarantees to SMEs with technical skills Deal with guarantees to smaller venture companies compared to the Korea Credit Guarantee Fund 	<ul style="list-style-type: none"> Designed to provide guarantees to regional SMEs to invigorate regional economies Responsible for providing guarantees to regional SMEs 	<ul style="list-style-type: none"> Trimmed the size of the credit guarantee, which sharply increased after the 1997 financial crisis The Korea Credit Guarantee Fund supports general and innovative firms while the Korea Technology Finance Corporation offers support to venture companies, "Innobiz" companies, and other firms less than 5-year-old that lead the technological innovation 	<ul style="list-style-type: none"> As the global financial crisis worsens SMEs' financial trouble, an emergency measure to expand guarantees was taken until end-2009 Except for fasttrack cases, credit guarantees were reduced from Jul. 2010

Public Guarantee Providers in Korea

		Korea Credit Guarantee Fund	Korea Technology Finance Corporation	Regional Credit Guarantee Fund
Establishment	Legal foundation	Act on Credit Guarantee Funds	Act on Financial Support to New Technology Businesses	Act on the Regional Credit Guarantee Federation
	Established by	Government	Government	Municipalities
	Established on	Jun. 1, 1976	Apr. 1, 1989	Mar. 19, 1996
	Purposes	Provide loan guarantees to firms with lack of collateral	Financial support to businesses with new technologies	Provide loan guarantees to small-sized firms with lack of collateral
Financing	Funding sources	<ul style="list-style-type: none"> • Government • Financial institutions • Private firms 	<ul style="list-style-type: none"> • Government • Financial institutions • New technology finance corporations 	<ul style="list-style-type: none"> • Government, municipalities • Financial institutions • Private firms
		Regulated by special laws		
	Through contribution of	0.225% of loans	0.135% of loans	0.02% of loans
Scope	Primary roles	Credit guarantee, and others including debenture guarantee, tax payment guarantee, performance guarantee, escrow guarantee, etc.		Credit guarantee
	Type of guarantees	<ul style="list-style-type: none"> • Direct guarantee • Consignment guarantee 	<ul style="list-style-type: none"> • Direct guarantee 	<ul style="list-style-type: none"> • Direct guarantee (Re-guaranteed by the federation)

Infrastructure for Information Production: KED

❖ Goals

- Systematically manage and provide SME-related data
- Build a systematic corporate credit information system which suits the needs of the market
- Provide SME credit inquiry service

❖ History

- In July 2004, KED was established as a subsidiary of the Korea Credit Guarantee Fund, to provide specialized services for SME credit rating

❖ Key Roles

- In B2B transactions
 - Provide accurate real time data
 - Improve transparency in B2B commercial transactions
 - Prevent insolvency of receivables
- In loan market
 - Help provide financial institutions with accurate credit information
 - Help manage credit risks and also reduce assessment costs associated with complying with Basel guidelines
- In public projects
 - Provide information for bidders and for selecting qualified companies for government projects

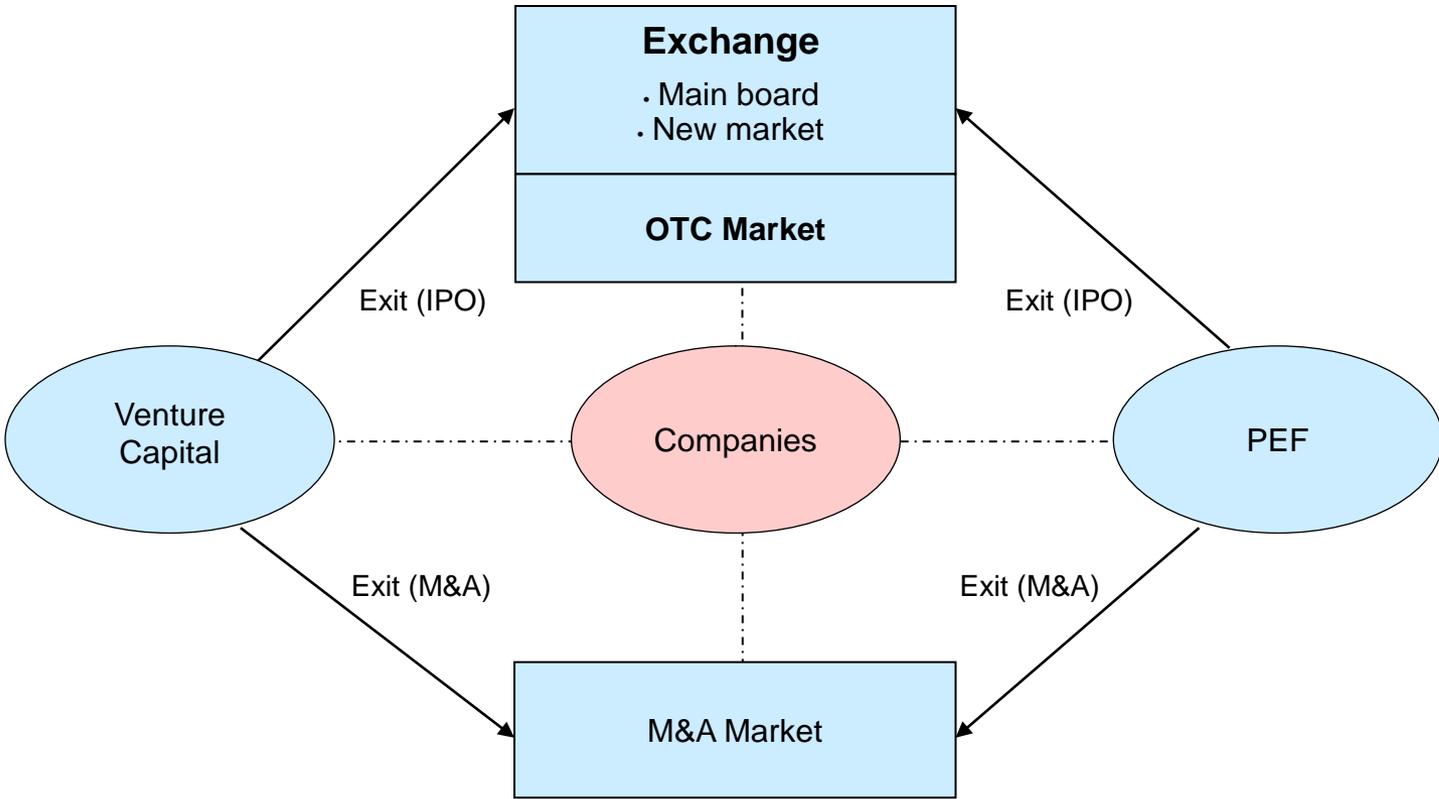
Policy Implications

- ❖ **Since SMEs suffer from lack of collateral and information asymmetry, the credit guarantee is regarded as a pivotal infrastructure for SMEs**
- ❖ **Balance required between public and private guarantees**
 - At introductory stage, government-sponsored public institutions play more significant role than private institutions like monoline insurance company
 - However, due to the fiscal burdens of governments after the recent crisis, a heavy dependence on public guarantee is not sustainable
 - As market develops, we need to capitalize on market players and market mechanisms
- ❖ **As for public guarantees, avoidance or at least reduction of moral hazard problem is critical**
 - Korea's experience during IT boom and bubble(e.g. KCGF, KTFC)
 - To address the potential moral hazard problem, the roles of the public guarantee organizations should be clearly specified and performance must be regularly evaluated and reported
- ❖ **A different guarantee system is needed depending on the development stage of capital markets**
 - Countries with underdeveloped capital markets should focus on to credit guarantees for SME loans
 - Countries with developed capital markets can use credit guarantees in the process of securitization(e.g. primary CDO) and credit derivatives

IV. SME Financing and Capital Markets

SMEs Ecosystem in Capital Market

❖ A bird eye's view is necessary in designing an architecture of SME financing



The Evolution of Venture Capital Market in Korea

Initial Phase (1974~1986)

- 1974: Korea Technology Advancing Corporation (KTAC) founded by Korea Institute Science and Technology (KIST)
- Three more New Technology Finance Companies established under Financial Support for New Technology Businesses Act (1986, Ministry of Finance and Economy)
 - 1981: Korea Technology Development Co. (KTDC)
 - 1982: Korea Development Investment Co. (KDIC)
 - 1984: Korea Technology Finance Co. (KTFC)
- Support for Small and Medium Enterprise Establishment Act enacted (1986, Ministry of Trade and Industry)

Growth Phase (1987~1998)

- Small and Medium Business Administration (SMBA) was established in 1996
- Act on Special Measures for the Promotion of Venture Businesses enacted in 1997
- Foundation of KOSDAQ in 1997
- 12 venture capital companies (VCs) were founded in 1986 and the number of VCs increased to 72 in 1998)

Overshooting Phase (1999~2000)

- VCs proliferated and the number of VCs peaked at 156 in 2000
- 325 venture capital funds (VC funds) were launched in 2000
- VCs invested \$ 2 billion in 2000

Consolidation Phase (2001~Present)

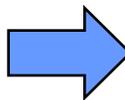
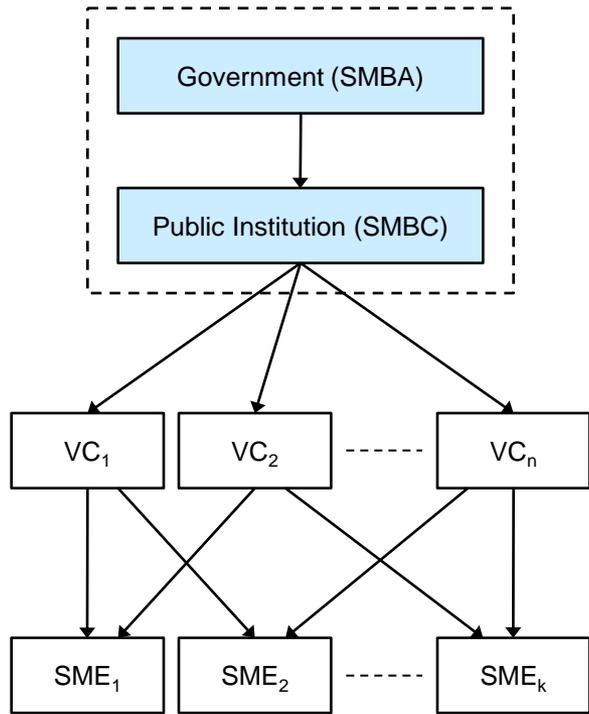
- After experiencing slowdown by the global economy downturn and plummeting technology-centered markets (Nasdaq, Kosdaq, etc.) from 2001 to 2004, the venture capital industry starts to take off again(104 VCs in 2006)
- Dramatic changes in government policies to “revive the venture industry”
 - Government General Measures to revitalize the venture industry
- In 2005, Fund-of-funds (SMBA), whose role is to allocate funds among VCs, was built based on Act on Special Measures for the Promotion of Venture Businesses
 - To strengthening the function of capital market

Success Factors

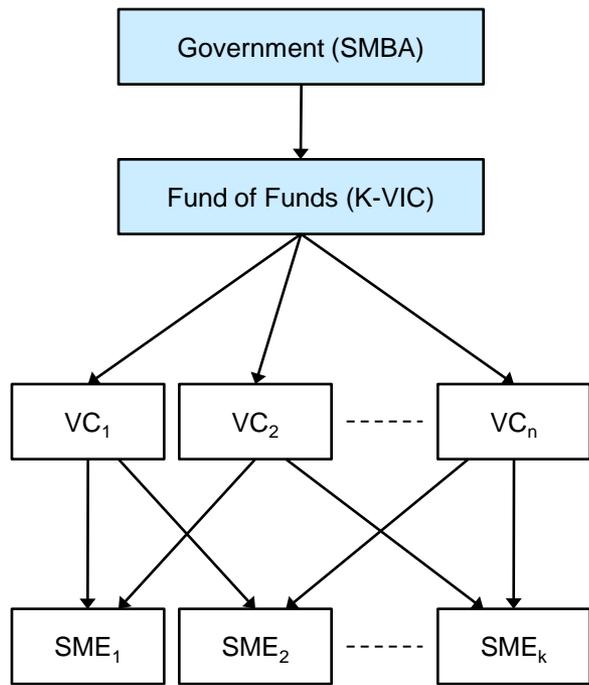
- Government Policies for nurturing venture companies
- Equity investment is larger than loan contract
 - Growth of stock market (KOSDAQ)

Capital Allocation through a Fund of Funds

Capital Allocation by Government



Capital Allocation by Fund of Funds



Exit Route of VC: New Market

❖ Providing exit channel for VCs through establishing new markets

- Korea’s new market KOSDAQ with 1,026 listed companies, acts as a major exit channel for the venture capital
- Going public on KOSDAQ is easier than on KSE (main board), and KOSDAQ has special listing standards for venture companies defined in venture business authorization system
- Venture companies are clearly defined in the “Act on Special Measures for the Promotion of Venture Business (1997)”
 - Four types of venture companies: Venture capital investment type, R&D intensive type, New technology patent type, Highly evaluated by authorized institution type

❖ Other countries also facilitate exits of VCs through new markets

(USD billions)

	Number of listed companies		Market Capitalization	
	2007	2011	2007	2011
KOSDAQ	1,034	1,019	107	92
NASDAQ	3,082	2,560	3,958	3,926
JASDAQ	1,151	963	135	109
AIM	1,175	805	123	56
TSX Ventures Exchange	494	458	39	27

Source: datastream, JASDAQ

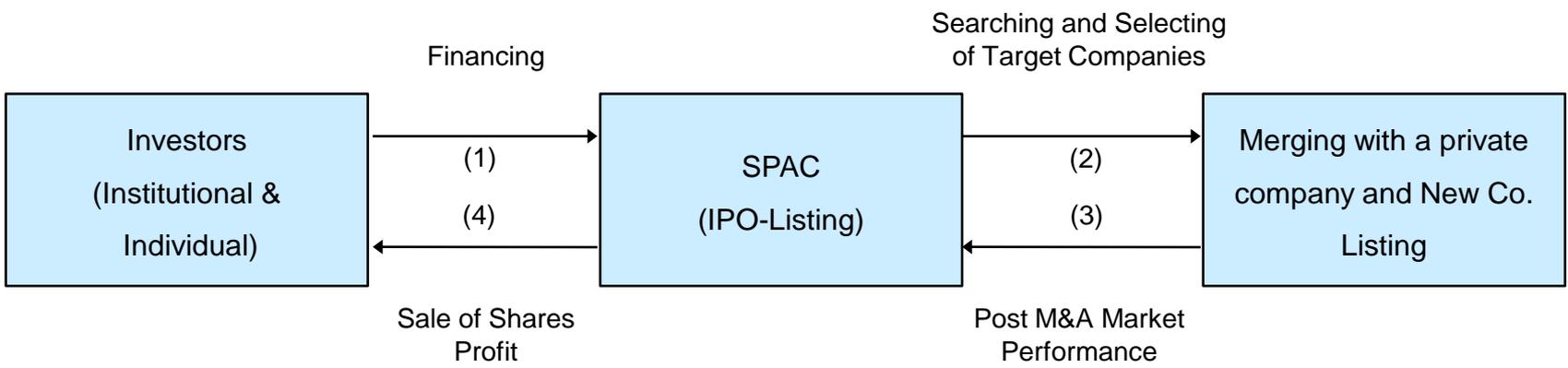
Exit Route of VC: M&A and SPAC

❖ Importance of M&A market as exit channels

- M&A market becomes important when IPO is hard to achieve during a stock market downturn
- In Korea, most of the exits for VCs were through IPOs
 - During 2000~2009, on average 85% of the VCs exited through IPO and 15% by M&A
- For the US, during 2000~2009, only 20% were through IPO while the remaining 80% were by M&A

❖ SPAC is an exit scheme combining both IPO and M&A where M&A is executed in the public equity market

- SPAC was introduced in Korea in 2009 to facilitate M&A
 - SPAC is a public listed company with an intention of M&A and raises capital through IPO
- Promising SMEs can get listed with timely capital injection without depending on the IPO market



Policy Implications: VC

- ❖ **Emerging economies without a well-functioning capital market need government-sponsored policies in their early stages**
 - Establishment of Small and Medium Business Administration (SMBA)
 - SMBA exclusively takes charge of venture capitals and small and medium enterprises
 - Tax benefits is an effective policy tool for attracting capital for venture-type SMEs
 - Tax exemptions on capital gains from venture stocks
 - Separate taxation on dividends
 - Investment income deduction on investors

- ❖ **As market advances, the allocation mechanism of the public capital must change**
 - From SMBA to SMBC and from SMBC to K-VIC

- ❖ **Diverse exit routes are essential for active investment of VCs**
 - IPO, M&A, SPAC, Secondary Fund, Securitization

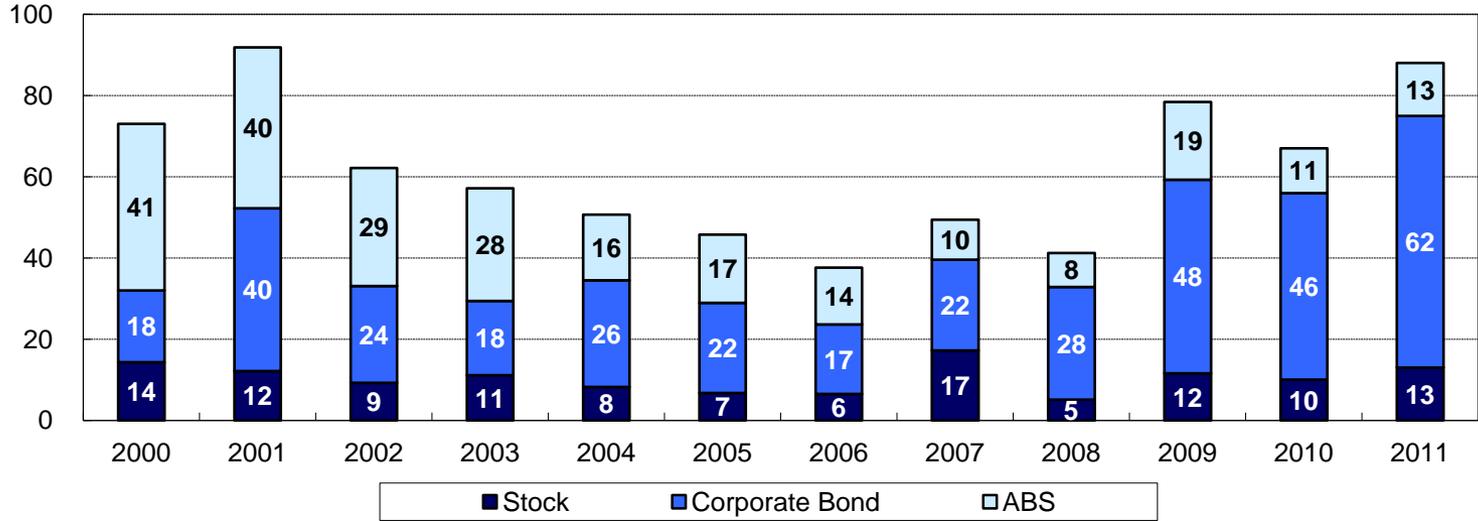
V. Securitization as an Innovative SME Financing Mechanism

Securitization as an Innovative Tool for SMEs

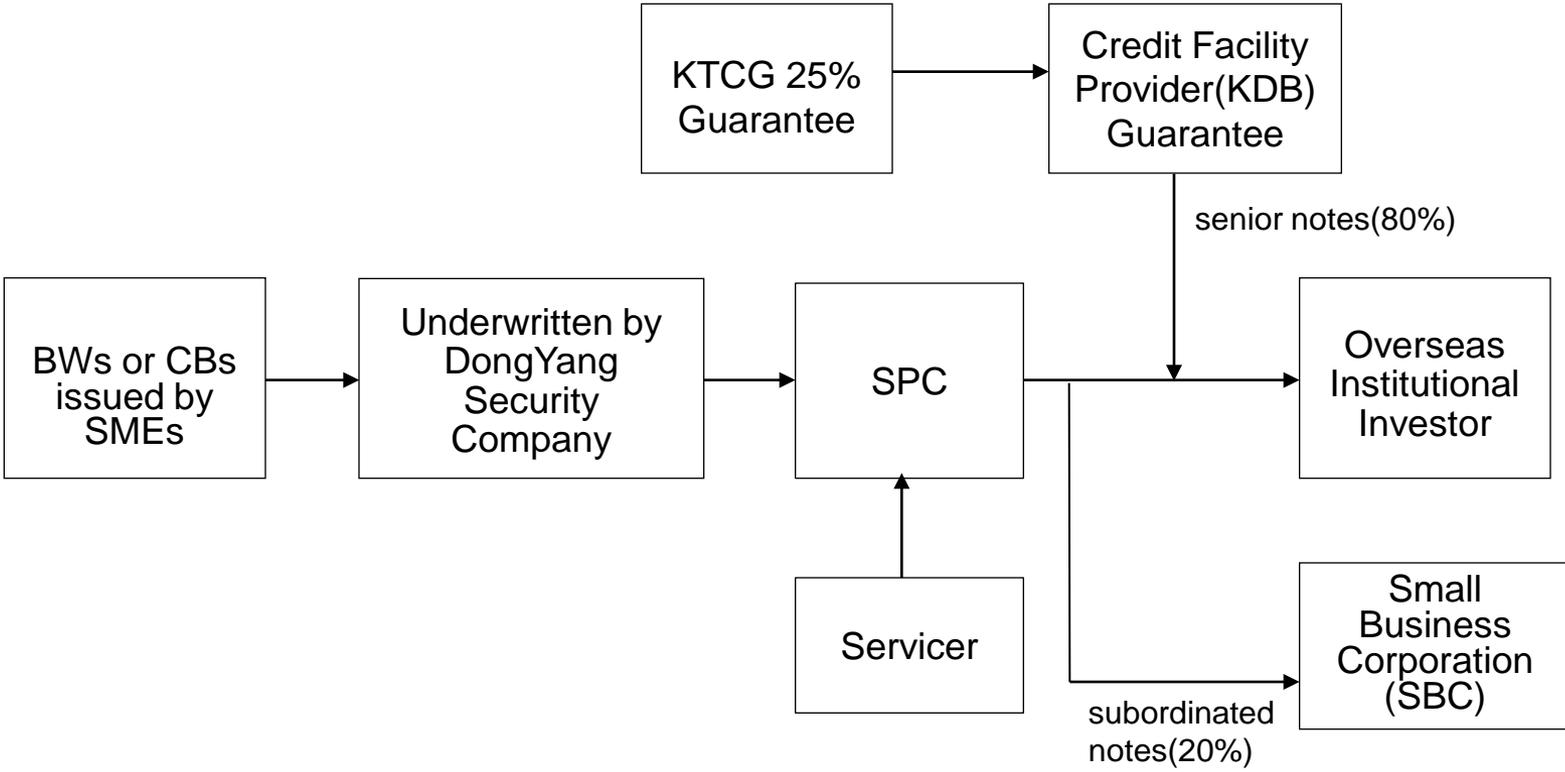
- ❖ **Due to their high credit risk, SMEs have to depend on financing sources which separate credit risk from issuing companies (e.g. ABS, credit derivatives)**
 - During economic crunch, only a few large companies can issue bond based on their own credit rating
 - ABS is useful to the innovative companies with intangible assets like patent, royalty etc

❖ **ABS is a major security class in the Korean capital market**

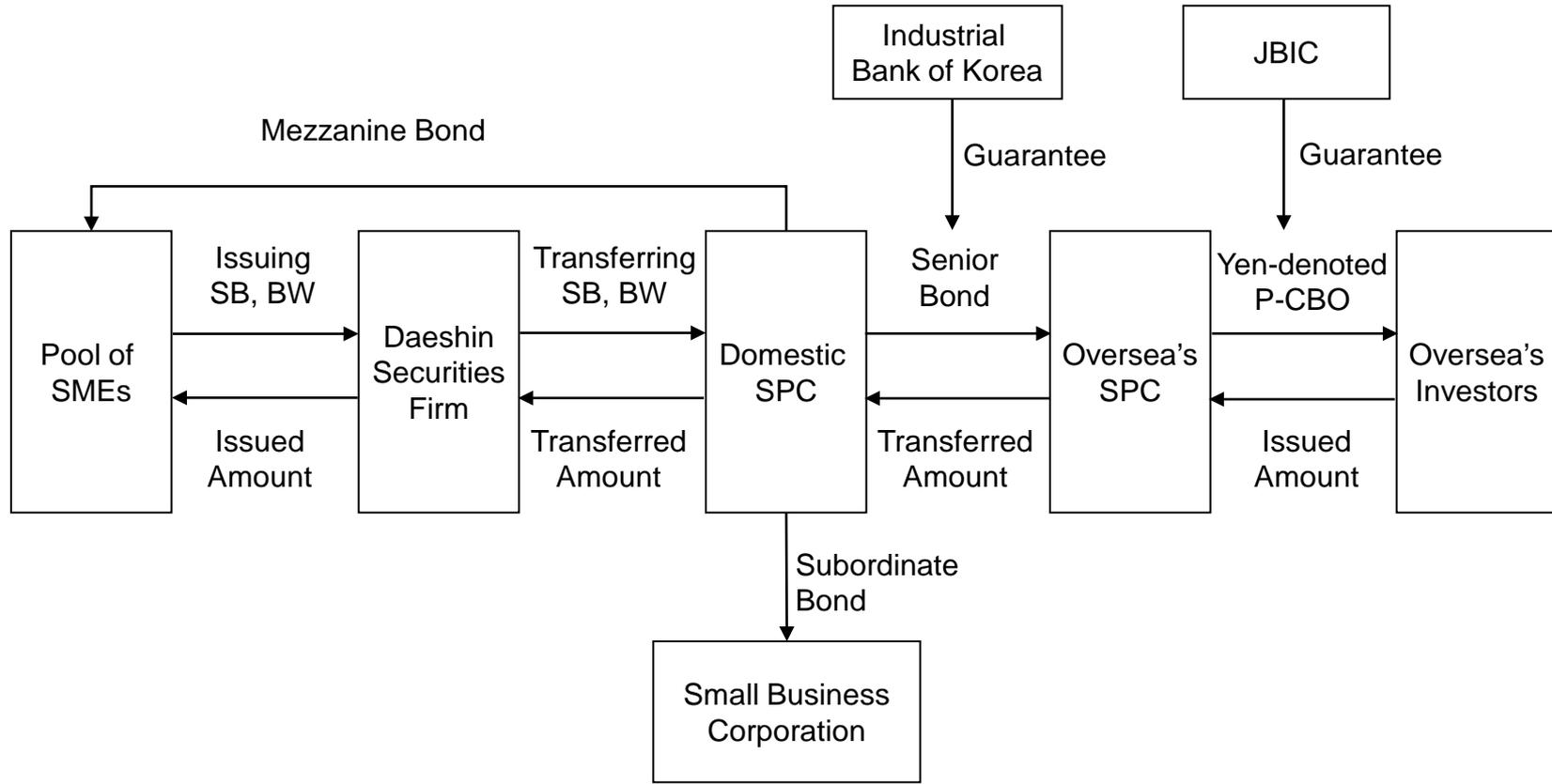
(Korea trillion won)



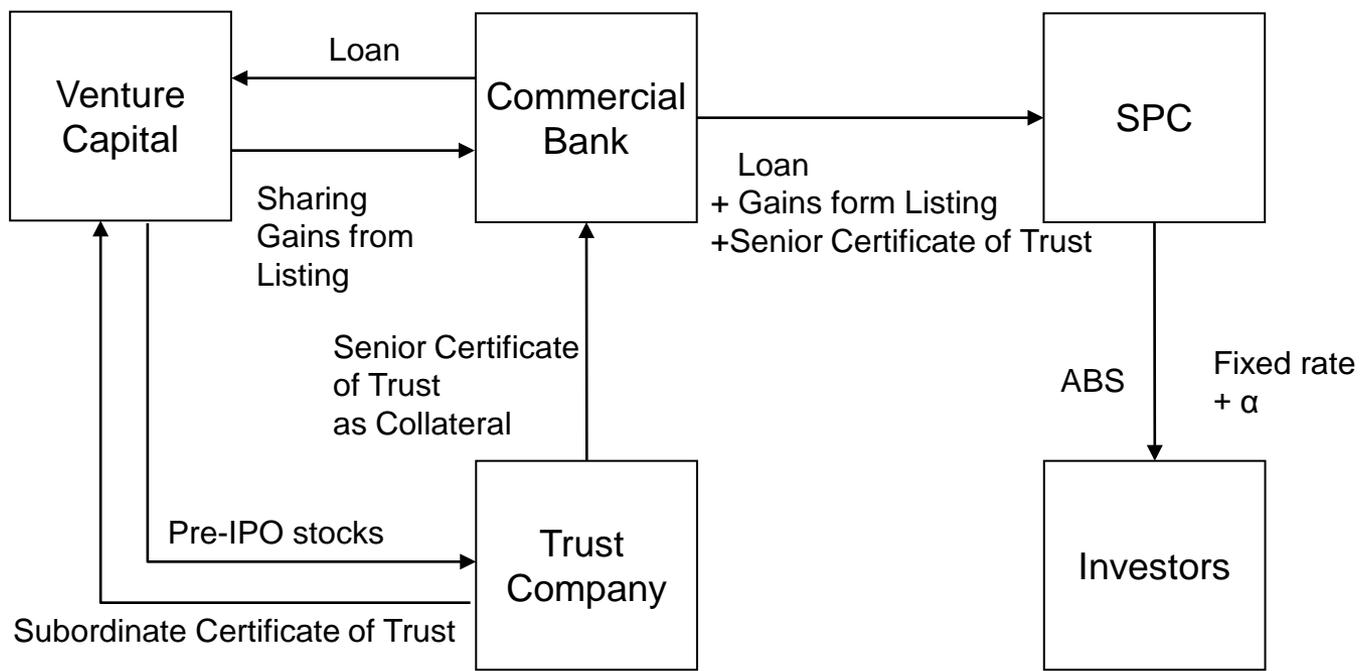
ABS as a Financing Scheme of SMEs: Primary CBO



ABS as a Financing Scheme of SMEs: Yen-denoted Primary CBO

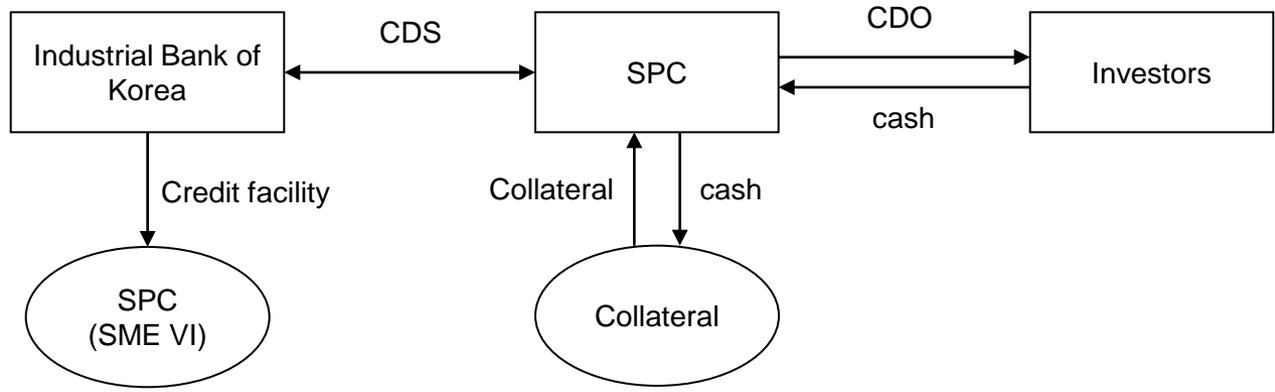


ABS as a Financing Scheme of Venture Capital: Securitization of Pre-IPO stocks

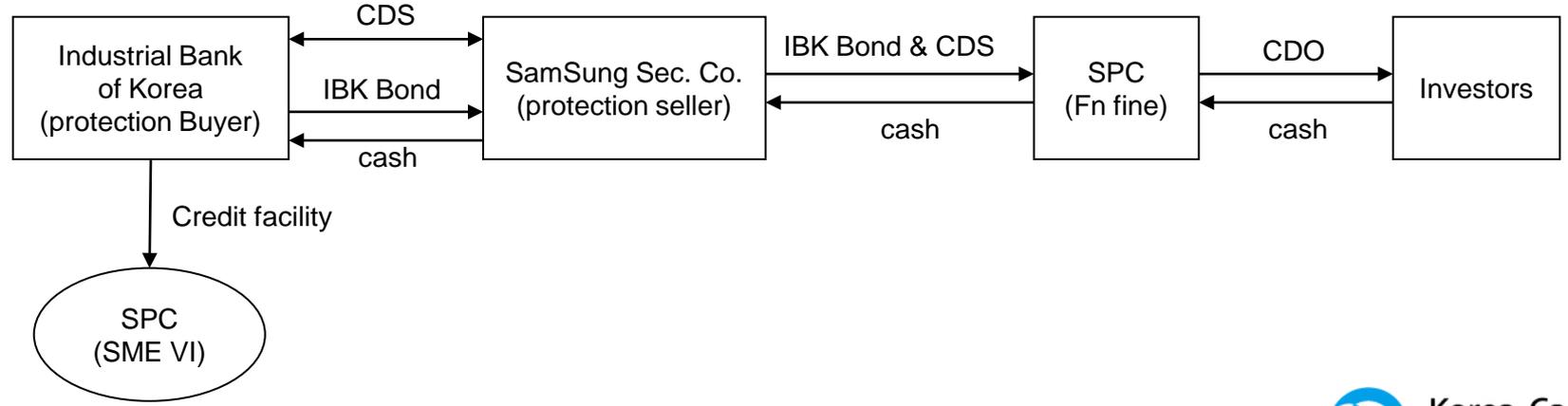


ABS as a Financing Scheme of SMEs: Synthetic CBO

<Synthetic CBO>



<Pseudo-synthetic CBO>



Key Success Factors for Korean ABS Market

❖ **Effective legal framework : “The ABS Act”**

- Who can be originators, what kind of assets can be securitized, what kind of securities can be issued, what process should be followed

❖ **Clear definition of “True Sale”**

- By clearly defining “true sale”, regulators have removed legal uncertainties related to asset transfer and, as a result, encouraged active involvement from a wide variety of originators, investors and IBs

❖ **Detailed and prompt information disclosure**

- Financial Supervisory Commission(FSC) provide a platform, DART system(electronic disclosure system), through which detailed information is quickly disclosed

❖ **Gradual expansion of originators**

- Through a stepwise expansion of originators, the government has prevented illegal behavior sometimes associated with high risk companies and has given market players the opportunity to adjust to a new business

❖ **Credit enhancement: banks and public credit guarantee funds**

- For a primary CBO, the government-owned credit guarantee funds (KCGF, KTCGF) have been the major source of credit guarantee

❖ **The CBO fund as a demand pool for subordinated ABS**

- At introductory stage, we used to have CBO fund which is required to invest more than 25% of its fund in subordinated bonds

Conclusions

- ❖ **For an effective financing of SMEs, the financial system need to develop three pillars - loan, credit guarantee and capital market**
 - SME specialized policymaker and legal framework are instrumental to support three pillars. This is especially so if financial market is not well-developed
 - As for the order of development, the typical model is “First, Loan and guarantee, second, capital market
 - However, well-developed capital market(e.g. securitization mkt) make it possible to expand loans to SMEs

- ❖ **In the financing of SMEs, regardless of countries, government-sponsored financial institutions play pivotal roles**
 - Who will carry out what function?
 - Due to the recent financial crisis and fiscal burden, we need to come up with the architecture which does not impose heavy fiscal burden to government

- ❖ **Capital market development is vital for sustainable support for SMEs, especially for innovative SMEs**
 - For activating equity investment, we need to expand the options of exit routes
 - The importance of securitization market backed by solid legal framework cannot be overemphasized